

19. A catheter system for inducing cardioplegic arrest in a heart of a patient, said catheter system comprising:

a first perfusion catheter having a first elongated catheter shaft, said first catheter shaft having a first distal end and a first occlusion device proximate said first distal end, said first catheter shaft having a first perfusion lumen which communicates with a first distal perfusion port distal to said first occlusion device, and

a second perfusion catheter having a second elongated catheter shaft, said second catheter shaft having a second distal end and a second occlusion device proximate said second distal end, said second catheter shaft having a second perfusion lumen which communicates with a second distal perfusion port distal to said second occlusion device.

#### REMARKS

Claims 1-19 are pending in this application.

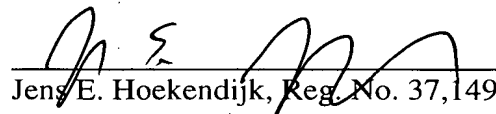
Attached is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned with "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

If a telephone interview would expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (415) 412-3322.

Please charge any required fees, including any necessary extension-of-time fees, or credit any overpayment to Deposit Account No. 08-1510.

Respectfully submitted,

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**IN THE TITLE:**

**[CARDIOPLEGIA CATHETER SYSTEM]  
METHOD FOR DELIVERING A FLUID TO THE CORONARY OSTIA**

**IN THE SPECIFICATION:**

The paragraph beginning on page 1, line 5 has been amended as follows:

**[This application is a divisional of co-pending application Serial No. 08/351,850 filed December 7, 1994, now issued as U.S. Patent No. 5,695,457. The complete disclosures of all of these related applications are incorporated herein by reference for all purposes.]**

This application is a continuation of U.S. Patent Application No. 09/151,582, filed September 11, 1998, which is a division of Application No. 08/615,152, filed March 12, 1996, now issued as U.S. Patent No. 5,807,318, which is a divisional of Application No. 08/351,850, filed December 7, 1994, now issued as U.S. Patent No. 5,695,457. The complete disclosures of the forementioned related U.S. patent applications are hereby incorporated herein by reference for all purposes.

**IN THE CLAIMS:**

1. (Amended) A method of **[inducing cardioplegic arrest in]** delivering a fluid to a heart of a patient, the heart having a coronary vasculature, comprising the steps of:
  - a) introducing at least one distal end of at least one perfusion catheter into a peripheral artery of said patient;
  - b) advancing said distal end of said perfusion catheter from said peripheral artery into at least one coronary ostium communicating with said coronary vasculature of said patient;
  - c) occluding said coronary ostium with an occlusion device proximate said distal end of said perfusion catheter;
  - d) **[arresting]** delivering a fluid to the heart through the perfusion catheter.

3. (Amended) The method of claim [2] 1 wherein said **[cardioplegic agent]** fluid is infused through said lumen of said perfusion catheter at a rate of at least approximately 100 ml/min at a pump pressure not exceeding 350 mmHg.

4. (Amended) The method of claim 1, wherein step d) comprises the substep of infusing a mixture of oxygenated blood and a cardioplegic agent to create the fluid and then delivering the fluid through a lumen of said perfusion catheter into said coronary vasculature downstream of said occlusion device at a rate of at least approximately 100 ml/min at a pump pressure not exceeding 350 mmHg.

5. (Amended) The method of claim 1, further comprising the step of:  
e) isolating said coronary vasculature from systemic circulation of said patient by continuing to occlude said coronary ostium with said occlusion device[ **while the heart is arrested**] for a period of time after delivering the fluid.

6. (Amended) The method of claim [5] 1, further comprising the step of:  
f) maintaining systemic circulation of said patient with peripheral cardiopulmonary bypass.

9. (Amended) The method of claim 1, wherein step a) comprises introducing a single perfusion catheter having at least two distal ends into said peripheral artery of said patient; step b) comprises advancing said at least two distal ends into at least two coronary ostia; step c) comprises occluding each of said at least two coronary ostia with an occlusion device proximate each of said at least two distal ends, respectively; and step d) comprises **[infusing a cardioplegic agent]** delivering the fluid through at least one lumen communicating with said at least two distal ends of said perfusion catheter into said coronary vasculature downstream of said occlusion devices.

11. (Amended) The method of claim 1, wherein step a) comprises introducing the distal ends of at least two perfusion catheters into said peripheral artery of said patient; step b) comprises advancing said distal ends of said at least two perfusion catheters into at least two coronary ostia; step c) comprises occluding each of said at least two coronary ostia with an

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